

CLAIMS

What is claimed is:

1. An autostereoscopic array, comprising:
a lenticular array, the lenticular array having a plurality of lenslets,
wherein each lenslet has at least a first and a second axis, where the first axis is parallel to a line corresponding to a center of curvature of a face of the lenslet, and the second axis bisects a projection of the lenslet, where vectors corresponding to each axis intersect at a first angle, the lenslet having a radius of curvature, where the lenticular array, if positioned between a viewing system and a pixel array where the pixel array has pixels composed of subpixel elements with gaps, will blur an image of the gaps with images of the pixels by choosing a rotation angle corresponding to a projection of the first angle.
2. The autostereoscopic array of claim 1, where the radius of curvature is varied instead of choosing the rotation angle to blur an image of the gaps.
3. The autostereoscopic array of claim 1, where a tilt angle is chosen instead of the rotation angle to blur an image of the gaps, where the tilt angle is a rotation of a lenslet into or out of the plane of the lenslet array, where the plane is defined by at least one of the tangents to the first axis of the lenslets and the centers of the lenslets.

4. The autostereoscopic array of claim 3, where the plane is concave in shape.
5. The autostereoscopic array of claim 3, where the plane is a non-concave.
6. The autostereoscopic array of claim 1 having at least a first and second lenslet, wherein the first axis of the first lenslet and the first axis of the second lenslet are offset an offset distance.
7. The autostereoscopic array of claim 1 having at least a first and second lenslet, wherein a first vector corresponding to the first axis of the first lenslet and a second vector corresponding to the first axis of the second lenslet intersect at a second non-zero angle.
8. The autostereoscopic array of claim 1 having at least a first and second lenslet, wherein the second axis of the first lenslet and the second axis of the second lenslet are offset an offset distance.
9. The autostereoscopic array of claim 1 having at least a first and second lenslet, wherein a first vector corresponding to the second axis of the first lenslet and a second vector corresponding to the second axis of the second lenslet intersect at a second non-zero angle.

10. The autostereoscopic array of claim 1, wherein the first angle is variable.
11. The autostereoscopic array of claim 1, wherein the radius of curvature is variable.
12. The autostereoscopic array of claim 1, wherein the viewing system is at least one of a user, an optical detector, and a camera.
13. An autostereoscopic display, comprising:
 - a pixel array, where the pixel array having a plurality of pixels, where at least one pixel has subpixel elements having gaps, the pixels being arranged in N groups corresponding with N individual perspective views to be displayed, each of the pixels forming a part of an individual perspective image; and
 - a lenticular array, the lenticular array having at least one lenslet, each lenslet having at least a first and a second axis, where the first axis is parallel to a line corresponding to a center of curvature of a face of the lenslet, and the second axis bisects a projection of the lenslet, where vectors corresponding to each axis intersect at a first angle, the lenslet having a radius of curvature, where if the lenticular array is positioned between a viewing system and the pixel array, where choosing the first angle and radius of curvature blurs an image of the gaps with images of the pixels.
14. The autostereoscopic display of claim 13, where N is two.

15. The autostereoscopic display of claim 13, where at least one pixel has three subpixel elements.

16. The autostereoscopic display of claim 15, where the subpixel elements can be at least one of a red subpixel, a green subpixel, and a blue subpixel.

17. The autostereoscopic display of claim 11, where at least one pixel has a white subpixel.

18. The autostereoscopic display of claim 11, where the display is used in an electronic display.

19. A method of autostereoscopic displaying a 3-D image comprising:
placing a lenticular array before a pixel array, the pixel array transmitting light, where the pixel array has a plurality of pixels, where a pixel has subpixels, and where the subpixels have gaps;

generating N individual perspective views using N groups of pixels in the pixel array; and

passing the light from the pixel array through the lenticular array, where the individual perspective views combine to form a 3-D autostereoscopic image, the lenticular array having at least one lenslet, each lenslet having at least a first and a second axis, where the first axis is parallel to a line corresponding to a

center of curvature of a face of the lenslet, and the second axis bisects a projection of the lenslet, where vectors corresponding to each axis intersect at a first angle, the lenslet having a radius of curvature, where the lenticular array, will blur an image of the gaps with images of the views by choosing the first angle and the radius of curvature.

20. The method claim 19, further comprising:

placing the lenticular array between the pixel array and a user.